Questions and Answers
Avenger Engineering Report/P2Vs

Q1. Who is Avenger Aircraft and Services LLC?
A1: Avenger Aircraft and Services LLC is a company composed of aviation engineers with previous experience with Lockheed products. The Forest Service contracted with them in January to conduct an evaluation of the Operational Service Life (OSL) on the P2V airtankers.

Q2: Did they work up a OSL?
A2: The Avenger engineers determined that based on full-scale fatigue tests, complimentary component level tests and correlated fatigue/damage tolerance analysis, the OSL for the P2V wing is 15,000 flight hours for the Navy mission. They will continue with engineering analysis to develop an OSL for the P2V as an airtanker.

Q3: How many hours do the nine P2Vs have on them now?
A3: All the P2Vs have less than 12,000 hours, with most of them having 8,000 to 10,000 hours. Airtankers generally fly 200 to 300 hours in support of firefighting efforts each year.

Q4: Will you be returning the nine P2Vs to service right away?
A4: Before the nine aircraft can be returned to service, they must first pass an additional inspection. Avenger highlighted two components of most concern on the P2Vs related to the wing structure.

Q5: Where will you assign any returning P2Vs?
A5: The aircraft are only assigned an administrative base not a "home" base, which means they fly to a starting point where their flight information and costs are tracked. They could be at this administrative base for a week or an hour. The nine P2Vs and the seven P3s are a national assets, and will be working out of whatever bases around the country that are appropriate and optimally located to fulfill a request for initial attack support.

Q6: Why did this report on the P2Vs take longer than the one on P3s?
A6: The OSL study performed on the seven P3s was done more easily because they are newer aircraft and the information was more readily available. The P2V are the predecessor of the P3, and more research was required to gather the data needed for the analysis.

Q7: Where did Avenger get the information?
A7: The engineering analysis used structural information from the Original Equipment Manufacturer (OEM) Lockheed, the U.S. Navy as the previous operator, and from a study performed by the Japanese Defense Service when they acquired P2Vs from the U.S. Navy in the 1960s.

Q8: Does this mean you won't need as many helicopters?
A8: No, not necessarily. Our primary goals remain firefighter safety and maintaining a 99% initial attack success rate with the right combination of tactics and tools. The P2Vs that return to service are a part of the aerial firefighting fleet that supports the ground firefighter. The large airtankers, the helicopter and helitankers, and the Single Engine Airtankers all play a role in meeting the needs of each unique incident.

Q9: Are you still looking for newer airplanes?
A9: Yes, and there are private contractors who are exploring options for new platforms right now. While the older ex-military aircraft are a valuable tool, their flight operations cannot be sustained indefinitely. The agencies continue to work with industry and academia to find a newer, safer platform for future aerial firefighting operations.

Q10: How is this different then the Dyncorp study?
A10: The work done by Dyncorp was an assessment of the contractors' inspection and maintenance programs, and a determination of whether an OSL was available and appropriate for the fire mission. The operators of the P2V aircraft, Neptune Aviation and Minden Air both had inspection and maintenance operations approved by Dyncorp. Avenger was awarded a contract to complete the engineering study.

Q11: Does this OSL information satisfy the recommendations that the NTSB sent to the Departments in May 2004?
A11: Partially. The OSL provides the mechanism to assess the how many hours the aircraft can be safely operated, but the agencies still need more data about the stresses on an aircraft in the firefighting environment. There are two P2Vs and a DC-7 currently on contract with monitoring equipment to gather that data, and the Forest Service is buying and installing operational load monitoring equipment for the rest of the heavy airtanker fleet.

Q12: What about the DC-4, DC-6 and DC-7 owned by TBM-Butler?
A12: The Forest Service has hired a different aviation engineering contractor, Genesis 3, to determine an OSL for the Douglas products. Until that information is developed, the agencies will not use them for firefighting.

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